



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/590,521	06/09/2000	Arturo A. Rodriguez	A-5704	1994

5642 7590 05/23/2002

SCIENTIFIC-ATLANTA, INC.
INTELLECTUAL PROPERTY DEPARTMENT
5030 SUGARLOAF PARKWAY
LAWRENCEVILLE, GA 30044

EXAMINER

SRIVASTAVA, VIVEK

ART UNIT PAPER NUMBER

2611

DATE MAILED: 05/23/2002

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/590,521

Applicant(s)
Rodriguez et al

Examiner
Vivek Srivastava

Art Unit
2611



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 20, 2002
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6, 8-15, and 21-41 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-29 is/are allowed.
- 6) ☒ Claim(s) 2-6, 8-15, 21-26, and 30-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

Art Unit: 2611

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 39 - 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Lyles et al (5,917,822).

Regarding claims 39 - 41, Lyles discloses an allocation manager for determining bandwidth allocation in a digital broadband delivery system (col 7 line 65 - col 8 line 49), wherein the bandwidth allocation manager dynamically determines a bandwidth allocation schedule by processing a plurality of allocation criteria received from a subscriber according to a statistical

Art Unit: 2611

model (col 7 lines 7 - 25, allocation criteria met by requests, see col 8 lines 20 - 50, statistical model met by weighting and scheduling), wherein the statistical model assigns a weight to each of the allocation criteria (col 8 lines 42 - 49), and wherein the assigned weight is selected in order to achieve an optimal bandwidth allocation (col 8 lines 20 - 50 and col 9 lines 3 - 25).

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3, 8, 9, 13, 14, 21, 22, 26, 30 - 32 and 35 - 38 are rejected under 35

U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Brown (5,771,435).

Considering claims 30, 31 and 32, Lyles discloses a bandwidth allocation manager for determining bandwidth allocation in a digital broadband delivery system (col 8 lines 3 - 16 broadband met by "HFC") and inherently discloses a network manager for allocating bandwidth according to the adjusted bandwidth allocation schedule determined by the allocation manager since the bandwidth is managed and allocated to a requesting user (col 8 lines 3 - 16). Lyles fails to disclose adjusting bandwidth allocation schedule by assigning at least two different content delivery modes and wherein the two content delivery modes are assigned based on the allocation

Art Unit: 2611

Lyles discloses requesting bandwidth in a CATV system. Brown teaches a hybrid NVOD and VOD system or at least two available content delivery modes for maximizing bandwidth efficiency (col 7 lines 32 - 56). It would have been obvious a hybrid VOD - NVOD system would provide a more flexible and efficient system in which two delivery modes would be possible for allocating bandwidth. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lyles to include the claimed adjusting bandwidth allocation schedule by assigning at least two different content delivery modes and wherein the two content delivery modes are assigned based on the allocation to provide a more flexible and efficient system for delivery requested content to users.

Considering claim 2, Lyles and Brown disclose the claimed subject matter, wherein Brown discloses wherein the at least two different content delivery modes (see NVOD and VOD in col 3 lines 31 - 67).

Considering claim 3, Lyles fails to disclose wherein the at least one content delivery mode comprises a video content delivery mode wherein at least three instances of a same movie video content are transmitted at time-spaced intervals of varying length.

As discussed above, the combination of Lyles and Brown discloses NVOD system providing a plurality of streams at time-spaced intervals (a definition of a NVOD system). It would have been obvious to one skilled in the art include a NVOD system in Lyles to enable a user to view movies and to transmit at least three instances of the same video content at time-spaced intervals of varying length to accommodate viewers who cannot start viewing at a

Art Unit: 2611

particular time. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Lyles and Brown to include the claimed at least three instances of a same movie video content are transmitted at time-spaced intervals to ensure viewers can select a desired movie at different times thus providing adding more viewing flexibility for the viewer.

Regarding claim 8, Lyles fails to disclose the claimed video-on-demand application server in communication with the bandwidth allocation manager, wherein the VOD application server transmits a list of available content delivery modes to the bandwidth allocation manager.

The combination of Lyles and Brown discloses transmitting via VOD mode or NVOD mode depending on constraints on the system's bandwidth. Brown further teaches monitoring the number of people requesting and viewing a VOD transmission and teaches allocating bandwidth for a VOD transmission only if system limits would not be exceeded (col 3 line 51 - col 4 line 15, col 7 line 13 - col 8 line 30). It would have been obvious providing a list of available modes to the bandwidth allocation manager to indicate whether or not to allocate bandwidth for a VOD session based on the availability of bandwidth and system limits. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lyles to include the claimed VOD applications server to indicate to the bandwidth allocation manager the list of modes available based on the available bandwidth and system limits.

Art Unit: 2611

Considering claim 9, Lyles and Brown disclose the claimed subject matter, wherein Brown discloses wherein the at least two different content delivery modes (see NVOD and VOD in col 3 lines 31 - 67).

Regarding claim 13, see claim 3.

Considering claim 21, Lyles and Brown disclose the claimed subject matter, wherein Brown discloses wherein the at least two different content delivery modes (see NVOD and VOD in col 3 lines 31 - 67).

Regarding claim 22, see claim 3.

Considering claim 26, Lyles discloses comprising allocating bandwidth in the digital broadband delivery system according to the bandwidth allocation schedule (col 8 lines 20 - 47)

Considering claims 33 and 34, Lyles discloses a bandwidth allocation manager for determining bandwidth allocation in a digital broadband delivery system (col 8 lines 3 - 16 broadband met by "HFC") and inherently discloses a network manager for allocating bandwidth according to the adjusted bandwidth allocation schedule determined by the allocation manager since the bandwidth is managed and allocated to a requesting user (col 8 lines 3 - 16). Further Lyles discloses wherein a time of broadcast is determined by the bandwidth allocation manager to substantially satisfy a plurality of subscriber requests to view the video content at a specified time (col 8 lines 20 - 49, col 9 lines 3 - 25). Lyles fails to disclose wherein the bandwidth allocation manager broadcasts a video content to a plurality of subscribers using bandwidth previously allocated to another content delivery modes.

Art Unit: 2611

Brown teaches delivery content via two content delivery modes, including VOD and NVOD, and teaches referring a requesting viewer to a NVOD session in lieu of the requested VOD session based on the system bandwidth constraints to minimize constraints on the system. (col 7 lines 12 - 21). It would have been obvious modifying Lyles to include an allocation manager which broadcasts video content to a plurality of subscribers using bandwidth previously allocated to another content delivery mode, as taught by the NVOD and VOD modes in Brown, would have not only added system flexibility in Lyles by providing two modes of delivery but would have also minimized constraints on the systems' bandwidth. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lyles to include the claimed bandwidth allocation manager to provide added flexibility and minimal bandwidth constraints.

Regarding claim 35, claim 35 discloses the same limitations as claim 31 and 32, including the claimed determining a time of broadcast that substantially satisfies the subscriber requests which is met by Lyles (see col 8 lines 17 - 49 and col 9 lines 3 - 34).

Regarding claims 14, 36 - 38, claims 36 - 38 recite similar limitations as recited in claims 31 - 32, the Examiner directs Applicant's to claims 31 - 32 for discussion of the limitations which are common. Claims 36 - 38 recited the additional limitation, which is disclosed by the combination of Lyles and Brown, where Brown discloses wherein the allocation criteria received from a subscriber comprises a subscriber reservation request comprising at least two preferences sets (two preference sets offered and available upon request are VOD set and an NVOD set,

Art Unit: 2611

wherein each subscriber preference set identifies a content delivery mode (user can request one of the two available modes - see col 3 lines 30 - 50, col 7 lines 12 - 47 and wherein the subscriber assigns a priority to each preference site indicating the subscriber's relative desire for each preference set to be fulfilled (col 3 lines 30 - 50, col 7 lines 12 - 47, weight is met by which mode a user desires).

5. Claims 4, 10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyles (5,917,822) in view of Brown (5,771,435) as applied to claims 31 and 32 above, and further in view of Ishizaki et al (6,108,002).

Regarding claims 4, 10 and 23, the combination of Lyles and Brown disclose requesting and viewing a program but fail to disclose the claimed wherein the allocation criteria received from the subscriber comprises a subscriber reservation request identifying a date and time that the subscriber wishes to reserve for viewing a program in the future. Ishizaki teaches by a subscriber requesting a on demand program by specifying the time and date for delivery, plurality of requests for the same program for the same date and time can be delivered simultaneously thereby efficiently utilizing the transmission network (col 10 lines 8 - 38, Abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Lyles and Brown to include the claimed reservation request to provide simultaneous communication thus providing a more efficient system to utilize the transmission network.

Art Unit: 2611

6. Claims 5, 11 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyles (5,917,822) in view of Brown (5,771,435) as applied to claims 31 and 32 above, and further in view of Haddad (5,835,843).

Regarding claim 5, Lyles and Brown fail to disclose the claimed allocation criteria received from the subscriber comprises a plurality of subscriber reservation requests with at least two assigned priorities.

Haddad teaches a video distribution center for distributing requested video to viewers (Abstract) wherein a order processing computer weighs each request and schedules and delivers in successive order (col 18 lines 33 - 37). It would have been obvious weighing each request (meeting the assigning a priority to a plurality of reservation requests) would have ensured each request would have been processed and serviced in successive order. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Lyles and Brown to include the claimed assigning at least two priorities to ensure each request is serviced or processed in order or in turn.

Regarding claim 11, see claim 5.

Regarding claim 24, see claim 5

Art Unit: 2611

7. Claims 6, 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyles (5,917,822) in view of Brown (5,771,435) as applied to claims 31 and 32 above, and further in view of Haddad (5,835,843)

Considering claims 6, 12 and 25, Lyles discloses wherein the bandwidth allocation manager processes a plurality of allocation criteria according to a statistical model to determine the bandwidth allocation module (col 8 lines 20 - 49, statistical model is met by weighing and allocating according to schedule). Lyles fails to disclose the claimed wherein the statistical model assigns a weight to each of the allocation criteria and wherein the assigned weight determines the priority given to each allocation criteria. Haddad teaches a video distribution center for distributing requested video to viewers (Abstract) wherein a order processing computer weighs each request and schedules and delivers in successive order (col 18 lines 33 - 37). It would have been obvious including a statistical model to assign a weight and resulting priority in Lyles would have ensured each request would have been processed and serviced in successive order. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lyles to include the claimed assigning a weight to each of the allocation criteria to determine priority to ensure each request is serviced or processed in order or in turn.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lyles in view of Brown as applied to claim 14 above, and further in view of Haddad (5,835,843).

Art Unit: 2611

Regarding claim 15, Lyles discloses a tuner that receives channel allocation information from the bandwidth allocation manager and processes the information into a format suitable for presentation to a subscriber (channel allocation information is met by “authorization signal” see col 11 lines 18 - 19), however, the combination of Lyles and Brown fails to disclose wherein the channel allocation information comprises VOD catalogue data that provides variable fee structures for a particular program. Haddad teaches providing a user with a catalog with price schedules (see “price” col 7 lines 45 - 50) wherein varying prices for the same product are offered by transmitting a requested video during off peak hours (col 3 lines 1- 5). It would have been obvious including a varying price structure in a VOD catalogue in the combination of Lyles and Brown would have provided viewers with reduced fees or prices for ordering a video during non-peak hours. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Lyles and Brown to include the claimed VOD catalogue with a variable fee structure to provide viewers with reduced prices for seeing a video while at the same time minimizing strains on the network bandwidth.

Allowable Subject Matter

9. Claims 27 - 29 are allowed.

Art Unit: 2611

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arias et al (6,118,976) - Asymmetric data communications system

Ganek et al (5,682,597) - Hybrid VOD and NVOD system

Any response to this action should be mailed to:

Art Unit: 2611

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308- 5399 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal
Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner
should be directed to Vivek Srivastava whose telephone number is (703) 305 - 4038. The
examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Andy Faile, can be reached at (703) 305 - 4380.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

VS

5/19/02




ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600